

Work Order ID 148642

Wednesday, July 06, 2016 8:37:16 AM

148642

Page 1

Item ID: D3260-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Spring
 Start Date: 6/23/2016 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 7/5/2016 Req'd Qty: 20.00 ***20*** Customer:

Reference:

Approvals: Process Plan: **DAS 21** Date: **JUL 08 2016** Tooling: Date: Run Start ***NR1***
 QC: **9-89** Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3260	Rev A								
100	PURCHASING	0.00				20	JUL 11 2016	DAS 13 9-89	
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>32982</u> Make as per Dwg D3260 Possible Supplier: Victory Spring Material release note is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.03							
Packaging	Ensure Material Release Note is attached								
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control									

21x SP16-7-13

21 DAS 38 JUL 14 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Item ID: D3260-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Spring

Start Date: 6/23/2016 Start Qty: 20.00

20

Cust Item ID:

Required Date: 7/5/2016 Req'd Qty: 20.00

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130

Identify as per dwg & Stock Location: 508

0.00

130

Packaging

Memo

0.03

Packaging

21 ^{DAS}
6
9-89 JUL 15 2016

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.33

Quality Control

DAS
21
9-89 JUL 15 2016

DAS
21 JUL 15 2016
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐ Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐		AGAINST DEPARTMENT/PROCESS				
Date :		Step #:		QTY Effective :		MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				
								Completed By
								Lead hand / Supervisor Approval Verification
								QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐								

Ricklist Print

Wednesday, July 06, 2016 8:37:15 AM

Page 1

Work Order ID: 148642

148642

Parent Item: D3260-1

D3260-1

Parent Item Name: Spring

Start Date: 6/23/2016

Required Date: 7/5/2016

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP A04.03.29New issueKJ/RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3260-1P		Purchased	No			100	Each	0.0000	1	20			
D3260-1P									**				
Spring													

21 X SP/6-7-13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

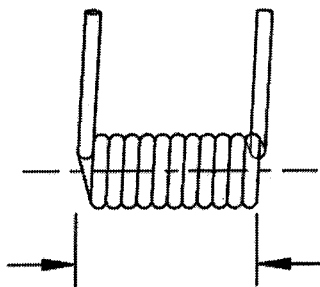
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							



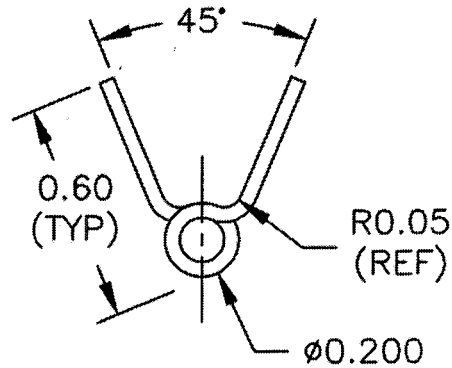
DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3260	REV. A SHEET 1 OF 1
DATE 04.02.27		TITLE SPRING	SCALE 2:1
A	04.02.27	NEW ISSUE	

RELEASED
04.04.07 *[Signature]*

SPECIFICATION CONTROL DRAWING



Ø0.040
12 COIL
(REF 0.480)



D3260-1 SPRING

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 178642-1-5
16-07-08

D3260-1 NOTES:

- 1) MATERIAL: AISI 302 SS SPRING WIRE Ø0.040 PER ASTM A313
(MIN TENSILE STRENGTH = 250 ksi)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO32982

Purchase Order Date 7/11/2016 1:32:44 PM

PO Print Date 7/11/2016

Page Number 1 of 2

Order From :

VC-VIC002

Ship To : DART AEROSPACE LTD

E-MAILED

VICTORY SPRING LTD.
#2 6104 - 82 AVE.
EDMONTON, AB T6B 0E7
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

JUL 11 2016

Contact Name

Vendor Phone 866 230 5312

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D3260-1P AS PER DWG D3260 REV.A B148642	Spring	7/21/2016 Yes 7/21/2016		20.00 Each <i>received</i>	\$9.25	\$185.00
						Line Total:	\$185.00
2	71401-45	PROCUREMENT QUALITY CLAUSES	7/21/2016 No 7/21/2016		1.00	\$0.00	\$0.00
Procurement Quality Clauses A005 RIGHT OF ENTRY A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE) A016 PERSONNEL QUALIFICATION A026 CERTIFICATION OF MATERIAL CONFORMANCE A040 NOTIFICATION OF QUALITY ESCAPE A042 DART NOTIFICATION BY SUPPLIER A043 RETENTION OF QUALITY DOCUMENTS							

Note:

7/11/2016



#2, 6104 - 82 Ave
Edmonton, AB T6B 0E7
t + 780 442 4020
e + accounts@victoryspring.ca

PACKING SLIP

Packing Slip: 35481
Date: Jul 11, 2016
Order Ref: PO32982

Sold to:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

Ship to:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

Shipped By: FedEx Overnight

Shipped Quantity	Backorder Quantity	Unit	Item No.	Description	Price
21	✓		✓	D3260-1P Torsion Springs	✓ 9.25
SP167-B					
Comment:					

MATERIAL CERTIFICATION

REPORT FOR: Dart Aerospace Ltd.	DATE: 7/11/2016																						
PART/DRAWING #: D3260-1P	PO # PO32982																						
SPRING DESCRIPTION: Torsion Spring	QUANTITY: 21																						
MATERIAL GRADE: T302 Stainless Steel Wire Spring ASTM-313-03																							
PROPERTIES: <table> <thead> <tr> <th><u>Chemical</u></th> <th><u>Physical</u></th> </tr> </thead> <tbody> <tr> <td>Carbon: (C) 0.067</td> <td>Size: 0.040"</td> </tr> <tr> <td>Chromium: (Cr) 18.010</td> <td></td> </tr> <tr> <td>Copper: (Cu) 0.450</td> <td>Tensile: 297,000 / 298,000</td> </tr> <tr> <td>Manganese: (Mn) 1.080</td> <td></td> </tr> <tr> <td>Molybdenum: (Mo) 0.300</td> <td></td> </tr> <tr> <td>Nickel: (Ni) 8.020</td> <td></td> </tr> <tr> <td>Nitrogen: (N) 0.070</td> <td>Heat # 410059</td> </tr> <tr> <td>Phosphorus: (P) 0.029</td> <td></td> </tr> <tr> <td>Silicon: (Si) 0.320</td> <td></td> </tr> <tr> <td>Sulphur: (S) 0.001</td> <td></td> </tr> </tbody> </table> Mill Source: SUMIDEN Origin Country: USA		<u>Chemical</u>	<u>Physical</u>	Carbon: (C) 0.067	Size: 0.040"	Chromium: (Cr) 18.010		Copper: (Cu) 0.450	Tensile: 297,000 / 298,000	Manganese: (Mn) 1.080		Molybdenum: (Mo) 0.300		Nickel: (Ni) 8.020		Nitrogen: (N) 0.070	Heat # 410059	Phosphorus: (P) 0.029		Silicon: (Si) 0.320		Sulphur: (S) 0.001	
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Sulphur: (S) 0.001																							

Certified by: Jeremy Burrowes

Victory Spring Ltd. certifies this to be a true & accurate copy of the original contained in the company records.

CERTIFICATE OF CONFORMANCE

REPORT FOR : Dart Aerospace Ltd.	DATE: 7/11/2016
PART/DRAWING #: D3260-1P	PO # PO32982
DESCR: Torsion Spring	QUANTITY: 21

VICTORY SPRING CERTIFIES BY THIS DOCUMENT THAT ALL OPERATIONS ARE DONE ACCORDING TO
DRAWINGS AND SPECIFICATIONS

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	SS 302	SS 302	
Material diameter	0.040"	0.040"	
Coil I.D.		0.116	
Coil O.D.	0.200"	0.195	
Number of Coils	12.0 ref	12.2	
Overall Length	0.480"	0.518"	
End Type	as per dwg	Yes	
Helix	Left Hand	Left Hand	

Mill Certificate attached:
Material Heat Number:

Inspected by: Jeremy Burrowes - QA

